REMARKS

The Final Office Action mailed April 7, 2005, has been received and reviewed. Claims 1 through 20 are currently pending in the application. Claims 1 through 9 and 11 through 20 stand rejected. Applicants propose to amend claims 1 and 8, and respectfully request reconsideration of the application as proposed to be amended herein.

Obviousness-Type Double Patenting Rejection

Claims 1 through 20 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 20 of U.S. Patent Application No. 10/035,738.

A terminal disclaimer and the appropriate fee are being filed herewith, in compliance with 37 C.F.R. § 1.321(b) and (c), to obviate the obviousness-type double patenting rejection, thereby expediting prosecution of the above-referenced application and avoiding further expense and time delay. The filing of a terminal disclaimer in the above-referenced application should not be construed as acquiescence of the propriety of the obviousness-type double patenting rejection.

Rejections Under 35 U.S.C. § 102

Claims 1-7 stand rejected under 35 U.S.C. § 102(b) for reciting subject matter which is purportedly anticipated by that described in U.S. Patent 3,612,955 to Butherus et al. (hereinafter "Butherus").

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

With respect to inherency, M.P.E.P. § 2112 provides:

> The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. *In re Rijckaert,* 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) . . . 'To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill . . .'' *In re Robertson,* 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1991).

It is respectfully submitted that, under 35 U.S.C. § 102(b), independent claim 1, as proposed to be amended, recites subject matter which is allowable over that described in Butherus.

Butherus describes beam leads that include ferromagnetic material. Butherus does not itself discuss incorporation of the ferromagnetic material into the beam leads. For that aspect, Butherus relies upon U.S. Patent 3,692,168 to Hughes, Jr., et al. (hereinafter "Hughes"). Hughes describes the difficulties associated with handling semiconductor devices in between their creation and their addition to the finished apparatus. *Hughes*, col. 1, lines 27-52. An important step in this handling process is the positioning or aligning of the devices into their proper locations on mounting boards before they can be secured or permanently bonded to the boards. Hughes reveals a method for positioning the devices on the boards by including ferromagnetic material in the devices and using magnetic fields to move the devices into position and hold them in place until permanent bonding can occur. *Hughes*, col. 1, lines 53-58. This method may be incorporated with a number of different permanent bonding techniques including laser welding, thermocompression, and ultrasonic bonding. *Hughes*, col. 5, lines 30-41. Butherus reveals an apparatus comprising a beam lead semiconductor device and mounting board (*Butherus*, col. 6, lines 2-3) where some of the beam leads on the semiconductor device contain ferromagnetic material as described in Hughes. *Butherus*, col. 2, lines 68-71. In Butherus, the beam leads containing the ferromagnetic material form asymmetric patterns that may be attracted to other ferromagnetic material similarly spaced within the mounting boards. *Butherus*, col. 1, lines 60-61.

Burn-in testing is a much different process than the assembly process described in both Hughes and Butherus. In burn-in testing, the connections to power and ground are generally temporary. Temporary connections allow for rapid changes between testing equipment with less damage to the equipment. Burn-in testing requires establishing an electrical connection that is temporary and yet strong enough to withstand the high currents and cyclically or variously fluctuating temperatures. The permanent sealing methods described in Butherus would not be effective for burn-in testing because they distort the beam leads. *Butherus*, col. 2, lines 55-58. This type of visible distortion would be unacceptable in a burn-in testing set up. The above-referenced application relates to a method for at least establishing an electric contact and temporarily maintaining the contact through drawing means in a way that allows the contact to then be released.

Butherus merely describes that " the magnetic material is incorporated asymmetrically in certain of the beam leads so as to insure the proper orientation of the semiconductor device as it is drawn to the mounting location...." *Butherus*, col. 2, lines 71-75. Butherus does not expressly or inherently describe that the magnetic material establishes or maintains sufficient contact between a beam lead and a corresponding terminal to establish an electrical contact between the beam lead and the corresponding terminal, as recited in amended independent claim 1.

Accordingly, it is respectfully submitted that, under 35 U.S.C. § 102(b), amended independent claims 1 and 8 recite subject matter which is allowable over that described in Butherus.

Each of claims 2-7 is allowable, among other reasons, for depending either directly or indirectly from claim 1, which is allowable.

Claim 4 is additionally allowable because Butherus lacks any express or inherent description that a first member of an electrical connector may be drawn toward a contact by positioning a second member of the electrical connector opposite the first member.

Claim 5, which depends from claim 4, is further allowable since Butherus lacks any express or inherent description that one member of an electrical connector may be attracted toward another member of the electrical connector. Instead, the description of Butherus is limited to attracting magnetic beam leads to terminals of a carrier substrate.

For these reasons, withdrawal of the 35 U.S.C. § 102(b) rejections of claims 1 through 7 is respectfully solicited.

Rejections Under 35 U.S.C. § 103(a)

Claims 8, 9, and 11-20 stand rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over that taught in Butherus in view of two Official Notices.

The Office has taken official notice of two teachings. First, the Office has taken official notice that "it is well known in the art to provide ground and power to electronic components to energize them." Office Action dated October 5, 2004, page 4. Second, the Office has taken official notice that, "during burn-in testing[,] [sic] heat is provide[d] [sic] either cyclically or variously to purposely fail the [burned-in] component." *Id.*

The standard for establishing and maintaining a rejection under 35 U.S.C. § 103(a) is set forth in M.P.E.P. § 706.02(j), which provides:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

It is respectfully submitted that a *prima facia* case of obviousness under 35 U.S.C. § 103 has not been established against any of claims 8, 9, or 11-20.

First, it is respectfully submitted the Butherus does not teach or suggest each and every claim limitation set forth in any of claims 8, 9, or 11-20.

Independent claim 8, as proposed to be amended, recites a method for stress testing a plurality of semiconductor devices that are carried upon a common substrate and that are in communication with common ground and power contacts. The method of amended independent claim 8 includes establishing electrical contact between a first member of an electrical connector

and at least one common contact, with at least one of the first member and the at least one common contact being drawn toward the other.

Butherus does not teach or suggest that the magnetized beam lead disclosed therein is useful for anything other than ensuring that a semiconductor device package is oriented properly with respect to a corresponding connection pattern of terminals on a carrier substrate, such as a circuit board. Specifically, Butherus lacks any express or inherent description that the magnetized beam leads and their counterpart terminals may be drawn toward one another to establish or maintain an electrical contact with each other, let alone to establish a temporary electrical contact that will withstand stress testing.

Instead, by requiring that a permanent bond be formed between each beam lead and its corresponding terminal, Butherus teaches away from the subject matter recited in amended independent claim 8. As such, without improperly relying upon the hindsight provided by the disclosure and claims of the above-referenced application, one of ordinary skill in the art would not have been motivated to modify the teachings of Butherus in the asserted manner.

As Butherus does not teach or suggest each and every element of amended independent claim 8, Butherus teaches away from the claimed subject matter, and one of ordinary skill in the art would not have been motivated to modify the teachings of Butherus in the manner that has been asserted, a *prima facie* case of obviousness has not been established against any of claims 8, 9, or 11-20. Accordingly, it is respectfully submitted that, under 35 U.S.C. § 103(a), amended independent claim 8 is allowable over both the teachings of Butherus and the teachings for which the Office has taken official notice.

Each of claims 9 and 11-20 is allowable, among other reasons, for depending either directly or indirectly from claim 8, which is allowable.

Claim 11 is further allowable since each of the electrical connectors of Butherus, which are presumed to be the leads of the packaged semiconductor device, comprises only a single element. Thus, Butherus includes no teaching or suggestion of both "drawing the first member" of an electrical connector "toward . . . at least one contact" (*see* independent claim 8) and "positioning a second member of the electrical connector opposite the first member," as are required by claim 11.

Claim 12 depends directly from claim 11 and is also allowable because Butherus neither teaches nor suggests that oppositely positioned first and second members of an electrical connector may be drawn to one another. Instead, the teachings or suggestions of Butherus are limited to attracting a single-element lead directly to a trace or terminal.

Claim 13, which depends directly from claim 12, is additionally allowable because Butherus includes no teaching or suggestion that first and second members of an electrical connector may be magnetically attracted to one another.

Claim 15 is further allowable since Butherus does not teach or suggest *securing* a first member of an electrical connector to a contact. Rather, Butherus merely teaches attracting single-element leads to corresponding magnetic traces or terminals. Securing of the leads to the traces or terminals is then effected by conventional bonding techniques, such as thermocompression. Col. 2, lines 47-59.

For these reasons, withdrawal of the 35 U.S.C. § 103(a) rejections of claims 8, 9 and 11-20 is respectfully solicited.

Election of Species Requirement

In the Office Action of July 25, 2003, it was noted that "[if] independent claim 8 is allowed, [withdrawn] claim 10 will be rejoined." In view of the allowability of independent claim 8, it is respectfully requested that claim 10 be considered and allowed. *See also* M.P.E.P. § 806.04(d).

Entry of Amendments

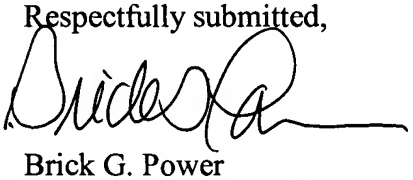
It is respectfully requested that the proposed claim amendments be entered. The proposed amendments do not introduce new matter into the application, nor would they require an additional search.

In the event that a decision is made not to enter the proposed claim amendments, entry thereof upon the filing of a Notice of Appeal in the above-referenced application is respectfully requested.

CONCLUSION

It is respectfully submitted that each of claims 1-20 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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